

Among other desirable species taken by Mr. Shoemaker and the writer which are not additions to the list, are two specimens of *Agrotis bostoniensis* Grote, which is more common northward; *Chloridea virescens* Fab., only mentioned from Staten Island in the New Jersey list, and *Semiophora grisatra* Smith, the type locality of which is Lakehurst. This last named species was found on the trunks of pine trees and also came to sugar at night. *Xylina capax* Grote & Robinson was collected October 19, 1913, and again October 9 to 12, 1914, when excepting *Heliophila unipuncta*, it was the most common species at sugar. In the New Jersey list it is recorded under the name *Anytus capax*, and only from "Ramsey IX, 19 (Sleight)."

In October, 1913, we collected *Xylina fagina* Morrison, *Xylina thaxteri* Grote, *Xylina laticinerea* Grote, *Scopelosoma walkeri* Grote, *Scopelosoma sidus* Guenee and *Scopelosoma tristigmata* Grote, which we did not find in October, 1914.—WM. T. DAVIS.

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF MAY 19, 1914.

A regular meeting of the New York Entomological Society was held on May 19, 1914, at 8.15 P. M., at Heim's Restaurant, President Raymond C. Osburn in the chair, with nineteen members present.

The meeting was preceded by an informal supper at 7 P. M. In calling the meeting to order, Dr. Osburn referred to the floral contribution from the garden of Mr. Joutel, who was unable to be present in person.

The Field Committee reported on the Field Meeting at Great Notch, N. J., and asked the wishes of the members regarding subsequent meetings.

After a general discussion of the subject it was voted to hold three meetings in the field, in which the Brooklyn Society should be invited to participate: Decoration Day at Wading River, L. I., July 4, at Pine Island, N. Y., Labor Day at a place to be selected on July 4.

On motion, Mr. Mutchler was authorized to act as librarian for the balance of the year.

Mr. Schaeffer exhibited "North American Species of *Onthophagus*" and spoke concerning them, saying in part that the so-called varieties of *O. janus* were not all properly placed, *substriatus* being in truth simply a color variation, but *subaneus* and *orpheus* quite distinct species. All the known species except *brevifrons* and *cribricollis* were shown, including several described by

Mr. Schaeffer himself and others added to our fauna by his investigations. Mr. Schaeffer referred particularly to a remarkable form from Lakehurst, with emarginate clypeus, agreeing in many characters with the description given for the Kansas and Texas species *cribricollis*, and asked that members having Lakehurst specimens should examine them carefully; also to a small, shining form of *pennsylvanicus* from Florida and Texas. He also mentioned the great differences in *Onthophagus* and other Coprinæ between the major and minor males in development of cephalic and thoracic protuberances, illustrated by a series of *Phanaeus difformis*.

Mr. Barber exhibited Belostomidæ from South America, determined by a Hungarian authority, and a series of *Lygæus albulus* Distant, collected by Mr. Olsen at Yaphank, L. I., stating that this species, originally described from Mexico, had been found at widely separated localities, viz.: Florida and Woods Hole, Mass.

Mr. Dow exhibited the work on entomology of Thos. Mouffet, published in 1634, but evidently prepared for the press by some one else, since Mouffet died in 1580. Mr. Dow said the material on which the work was based seemed to have been gathered by Conrad Gessner in Germany and to have served for eleven or twelve editions by various hands, including Edward Wharton and Martin Lister, who left his manuscript to John Ray. The number of preceding authors cited was interesting and the notoriety of the work was sufficient to have caused Mouffet's name associated with invertebrate life to appear in nursery rhyme.

Dr. Osburn called attention to the accuracy with which the expanded pouch of the male sea horse, in which the eggs laid by the female are carried, was figured on one of the plates.

Mr. Davis exhibited *Donacia emarginata* from Lakehurst, N. J., taken by sweeping the palustral vegetation by the side of the ditches adjoining the railroad tracks; and, commenting upon Mr. Woodruff's recent discovery of the pupæ on roots of *Caltha palustris*, said this plant did not occur at Lakehurst, so the species must have other food plants as well.

Mr. Woodruff said he expected that it bred in skunk cabbage.

Mr. Leng showed photographs made by Mrs. Ellen Robertson Miller of *Donacia palmata*, its larvæ and their work on Yellow Water Lily.

Mr. Comstock showed three very different forms of the common little copper butterfly, *Chrysophanus hypophlaæas* Bdv., collected and mounted by Mr. Hall, and commented on the recent duplication of the description of the form without spots, i. e., *obliterata* Scudder.

Mr. Schaeffer called attention to the long wet spring as being specially favorable to the development of melanic forms.

Mr. Mutchler exhibited *Metamasius sericeus* and *M. hemipterus*, quoting Champion's doubts as to their being distinct on account of similar male characters and giving in detail the known distribution of each, by which it appeared that the one was confined to South America, the Lesser Antilles and Porto Rico, while the other was found in Cuba and Jamaica. He also spoke of the food habits, boring in the trunks of moribund banana, and apparently as a

secondary matter attacking sugar cane, quoting several West Indian agricultural reports, in none of which did it, however, appear to be a serious pest.

Dr. Lutz gave details from his personal experience in Dominica and from the Cuban journey with Mr. Leng of its habits, stating that the banana trunks in which it normally feeds are very sappy and fibrous and that any physically similar vegetation as sugar cane or Bromeliads are therefore liable to attack. Dr. Lutz added that the gnawed fiber is finally gathered together for the pupal covering.

Speaking of the various names for Hispaniola, Dr. Lutz said that Haiti, while commonly used really covered only half the island, the other part being known as San Domingo, and that a confusion of records would result from using either exclusively; while Hispaniola was not only the older but the only proper name for the whole island.

Mr. Shoemaker exhibited *Platynus caudatus*, quoted as rare in spring in Ulke's List of Beetles of District of Columbia, and said he had personally found it rare on June 2d and missing in July, but it reappeared late in August and was plentiful in September along the banks of the Potomac above the Free Bridge. His captures resulted from free use of bottles baited with syrup.

Mr. Miner spoke of the distribution of the land snails of the genus *Cerion*, inhabiting Cuba, Haiti, Porto Rico, Bahamas and Florida Keys, entirely absent in Lesser Antilles, but found in Curaçao. The habit of these Mollusca is to live about 300 yards from the sea and to form local colonies which offer characteristic variations, so that the Cuban species is quite distinct from others. Distribution is necessarily a slow process and salt water becomes an impassible barrier except by the aid of floating wood. This distribution is interesting as confirming Dr. Britton's view that the regions in which the genus occurs constitute a unified province, separate from Jamaica, for instance, where the snails do not occur.

Mr. Schaeffer said it was prudent to check distribution records obtained from one group of organisms by similar records from other groups, giving instances from his experiences in Texas and Arizona of the different results deducible from comparisons in different families and orders.

Mr. Leng, referring to the possibly assumable elevation of the continental shelf on which rested the coral reefs of Cuba, Bahamas and Florida, pointed out that the same assumption had previously been made to explain the isolated Carolinian flora of the sandy areas about Bay St. George, Newfoundland.

Mr. Roberts spoke of the importance of the coxal file as an index of specific difference in *Laccophilus*, affording an absolutely certain means of separating species of great resemblance in color. Applying this test demonstrated that *L. proximus*, described by Say from Louisiana and Texas, occurs also in the Antilles, the *americanus* of Aubé (but not of Crotch), cited in Antillean lists being an absolute synonym.

Dr. Osburn exhibited *Tabanus zonalis* Kirby taken by Mr. Sleight in Bear Swamp, near Ramsey, N. J., May 28, 1911, saying that the specimen shared with one taken by Mr. Watson at Greenwood Lake the honor of establishing

the southernmost records for the species which is usually found in New England, Canada and northern North America.

He also showed specimens of *Criorhina verbosa* Harris personally captured after a dozen year's hunt, and an interesting series of *Pipiza albopilosa* Williston, new to the New Jersey List, caught May 10 about wet places under the Palisades, a locality reached by motor boat ferry from Dykeman Street station of the subway, and very desirable as a collecting ground. He said Johnson had put *femorialis* and *albopilosa* together, possibly correctly, since in the Palisades series of nine males (which sex in Diptera often emerges before the female) only five were pure *albopilosa*, while four showed abdominal spots approaching in varying degree the markings of *femorialis*, though none were the typical *femorialis* as shown in Canadian specimens received from Chagnon. These Syrphids were very rapid on the wing and were caught hovering over the bushes.

Mr. Roberts mentioned that the Ramsey specimens in Mr. Sleight's collection, supposed to be *Haliphus ruficollis*, proved to be uniformly *Haliphus blanchardi*.

Mr. Leng exhibited, at the request of the publisher, the first number of a new journal, "Microkosmos."

Society adjourned until first Tuesday in October.

MEETING OF OCTOBER 6, 1914.

A regular meeting of the New York Entomological Society was held on October 6, 1914, at 8.15 P. M., in the American Museum of Natural History, President Dr. Raymond C. Osburn in the chair, with seventeen members and two visitors, Mr. Bridgeman and Mr. Chas. T. Ramsden, of Guantanamo, Cuba, present.

Mr. Barber spoke of his visits to Porto Rico, stating that Mr. Watson and he had started from New York on July 4 and spent four weeks on the island, collecting insects of all orders at San Juan, Ponce, Mayaguez, Arecibo, Coamo Spring and Aibonito in the mountains of the interior, at which last named locality they found the best collecting. The season did not prove the best for collecting; April, May and June would have been better. He spoke of the great difference in the physical characteristics of the places visited and promised further details later.

Mr. Barber also spoke of his visits to Pine Island, N. Y., where early in the summer he found good collecting in and around the great swamps, and to Nebraska and Missouri, where towards the end of the summer it was too hot and dry for good results.

Mr. Davis spoke first of the Society's field day at Wading River, L. I., then of his trips to the summit of Whiteface Mountain, N. Y., with Mr. Shoemaker, and finally of the Catskill Mountains, N. Y., and Riverhead, L. I. At the last named place he found two beetles of interest, *Strategus antaus* and *Cicindela abdominalis*, both known from the Pine Barrens of New Jersey. The first, popularly known as Ox-beetle, was first found by Mr. Schaeffer in

August, 1912; in 1913 only an elytron was found, but this year four were found within 200 or 300 feet of which only one was alive. The locality for these beetles is a sandy stretch towards Bald Hill. Of the *Cicindela*, a single specimen was found in 1913, but this year a number were found on a sandy road through the pines near the town, a little back from the river.

Mr. Davis added that he believed the New York records for *C. abdominalis* derived from specimens in the Luetgens Collection were erroneous, since Mr. Beyer, who gave them to Luetgens, had stated that he had collected the species in Florida only.

Mr. Sherman spoke of two weeks spent at Marquette, Mich., on Lake Superior, where he had collected 700 species of Coleoptera, or about 60 per cent. of the record catch of Hubbard and Schwarz, 1,100 species. As compared with his previous visit, the date, July 12, proved late for some of the rare species like *Anthophilax*, and showed a marked difference in the number of individuals of certain short-lived species. Three years ago, *Cephaloon lepturoides* was by far the most common species; this year its place was taken by *Buprestis fasciata*. Fifty species of Dytiscidæ were obtained in the swampy areas between the sand ridges bordering the lake, a much smaller number than would have been obtained in suitable localities near New York. Mr. Sherman said the beach collecting, which is the principal attraction at Lake Superior, depends on weather conditions; usually three days' land breeze and three days' lake breeze alternate, the beetles being washed up on the beach by the latter. He exhibited two interesting species, *Miscodera arctica* and *Nomius pygmaeus*, the latter being readily known by its peculiar odor, quite appreciable after immersion for weeks in alcohol.

Mr. Shoemaker spoke of his journey to Washington and the Adirondacks with Mr. Davis, and of recent visits to the Palisades where on September 13 and September 20 he had found specimens of *Sandalus niger* and *petrophya*.

Mr. Engelhardt spoke briefly of his visit to the Bahama Islands, New Providence, Abaco and Andros, where he obtained many photographs and insects, to be shown later in the season; and in more detail of his vacation in the eastern part of New York State, including Ithaca, Watkins Glen, Geneva, Rochester and the Letchworth State Park near Portage. He spoke particularly of the gratifying results of the influence of the Entomological Department of Cornell University on the farming industry along the shores of Lake Geneva, where in the extensive grape and peach orchards the operations of spraying and other remedies as taught at the University have become matters of routine; and of the natural beauties of the Letchworth Park, with its many waterfalls and defiles, enhanced by the preservation and reforestation of its 1,000 acres. At Ithaca Mr. Engelhardt collected *Mantis religiosa* in numbers at electric lights and in the meadowland and said the specimens are believed to be descended from egg masses exposed twelve years ago by Slingerland.

Dr. Osburn called attention to a specimen of *Eristalis tenax* attracted by the lights in the room and said it was perhaps as well that it could not join in describing its summer experiences.

Mr. Leng spoke of collecting in September at Huguenot Beach, Staten

Island, where many species of *Anthicus* were found in the sand, while Pselaphidæ were abundant under high tide bushes in the adjoining salt meadow; and at Ward's Point, Staten Island, where a number of species were obtained by pulling up the grasses and shrubs growing in the sand.

Dr. Lutz introduced Mr. Ramsden, who spoke of collecting insects in the eastern end of Cuba, stating that the best seasons were usually from April 15 to June 15, and from September 15 to November 15, the two rainy seasons, though in some years rains starting in February would bring good collecting earlier. Two or three days' rain is sufficient to start the insects and an interruption of dry windy weather will check them, good collecting being really a product of moisture rather than season. Mr. Ramsden closed by extending an invitation to entomologists to visit him at his sugar plantation at Guantanamo.

Mr. Dow spoke of finding *Phlegethontius cingulata* and *Colias corytheme* in Brooklyn, and of his correspondence during the summer with several entomologists.

Mr. J. W. Angell spoke of his visit to Twin Lake, Conn., recommending it as a desirable locality, embracing lakes, forests and swamps of boreal character.

Mr. Engelhardt referred to the capture of a specimen of *Catocala herodias* at Wading River as an additional example of Pine Barren insects occurring on Long Island.

Mr. Davis said its food plant was *Quercus nana* and that it was therefore liable to occur elsewhere and in fact did. The larva, resembling a swelling on the bark, had been found on that tree and raised.

Mr. Wheat showed many photographs of the Bahamas and particularly of the long string of small keys among which he had cruised this summer. He said there were apparently very few insects, practically no mosquitoes or flies and only a few species of moths and butterflies.

MEETING OF OCTOBER 20, 1914.

A regular meeting of the New York Entomological Society was held October 20, 1914, at 8.15 P. M., in the American Museum of Natural History, Vice-President Barber in the chair, with seventeen members and one visitor, Dr. Robert T. Morris, of the Linnæan Society, present.

Mr. Leng read a paper on "Nut and Acorn Weevils," exhibiting his collection and that of Mr. Davis. He gave a résumé of the literature, especially praising the paper by Fred E. Brooks, contained in Bulletin 128 of the W. Va. Agl. Exp. Station published in 1910. In reviewing the synonymy, he agreed with Casey's views published in Can. Ent., 1910, by which *Balaninus rectus* Say is interpreted as the acorn weevil with a long straight beak in the female, but added that *B. quercus* Horn is evidently the male of the same species, as shown by specimens taken in copulation by Mr. Davis, as well as the study of the descriptions. Since the name *rectus* was previous to Casey's 1910 paper applied to the smaller chestnut weevil, it follows that the name *algonquinus*,

proposed by Casey, becomes the first for that species. Mr. Leng also pointed out that Say's description of *nasutus*, though brief, fits well the hazel weevil and probably therefore has priority over *obtusus* Blanchard.

In reference to the acorn weevils with short beaks in both sexes, the first name applied was shown to be *uniformis* Lecoute, probably inapplicable to eastern specimens on account of the type locality being Pacific Coast; the second was *confusor* Hamilton, which should therefore take precedence over all later names, which do not represent species strongly separated by positive characters.

Mr. Woodruff, commenting on the last statement, said that *baculi* Chittenden from its uniform sooty color was the most easily recognized of all short beaked species

Dr. Morris said that in his plantation near New York City, where he had under cultivation many species of domestic and imported chestnut trees, the chinquapins of three species seemed immune to fungus disease and weevils; it appeared possible on discussion that the apparent immunity from weevils might result from the nuts being gathered before the larvæ had matured.

Mr. Davis, Mr. Schaeffer and Dr. Love joined in the discussion, the latter recalling that the *Balaninus* adults were plentiful on the chinquapins in West Virginia when he was there with Mr. Leng.

Mr. Schaeffer spoke under the title "Notes on Coleoptera" of *Alaus canadensis* being distinguishable from *A. myops* by the antennæ being alike in both sexes as well as by the color and size, and of *A. zunianus* being distinguishable from *A. lusciosus* by the blackish color beneath, extending even to the legs and modified only by a few white spots; the standing of Lecoute's *gorgops* would, however, require investigation before any change was made. Mr. Schaeffer also commented on *Chalcolepidius apacheanus* as probably distinct from *C. webbi* on account of the vestiture of the tarsi, color, etc., as pointed out by Champion. Three species of *Physonota* were also shown, *picticollis*, *alutacea* and *unipunctata*, the first, a Mexican species, was collected at Tucson, Ariz., by W. M. Mann. In connection with *alutacea*, Mr. Schaeffer recalled finding the larvæ at Brownsville, Texas, which are provided with appendages like some *Thysanura* and very lively. Another interesting exhibit was a variety of *Strategus julianus* from Douglas, Ariz., with the side horns of the thorax acute at apex and the clypeus more deeply triangularly emarginate at apex than in *julianus*. Specimens of *S. 4-foveata* from the West Indies and *S. anachoreta* from the Bahamas expedition of Mr. Engelhardt were also shown, and mention made of a specimen of the former labeled "Fla," but perhaps erroneously, in the Dietz Collection.

Mr. Schaeffer also mentioned the finding by Mr. Schott of a single specimen of the European *Calosoma sycophanta* near Prospect Park, and showed the drawings in color of the species of Cassidini by Mr. H. B. Judy, the artist of the Brooklyn Museum.

Mr. Sherman said that Mr. J. W. Angell had found in a brook at Twin Lakes, Conn., specimens of *Hydroporus semirufus* Lec. (*dimidiatus* G. & H.),

a species heretofore unknown east of Arkansas. He also reported the destruction of the Peekskill locality for *H. difformis*.

Mr. Sherman mentioned also receipt of a letter from Dr. E. C. Van Dyke, giving details of a proposed summer camp at Lake Tahoe, Cal., where Dr. Van Dyke would be in charge from June 15 to August 31, 1915.

Mr. Davis showed a letter from Mr. Wintersteiner, dated Vienna, August 27th, and said Mr. Dow had one dated September 15th, both indicating his prospective speedy return. Mr. Davis also showed Bulletin 141 of Minn. Agl. Exp. Sta., on the Acridiidae of Minnesota by M. P. Somes and said it indicated more species of grasshoppers in Minnesota than in New Jersey by 78 against 65, the excess being partly in the genera *Melanoplus* and *Arphia*. He also showed the Proc. Ac. Nat. Sci. Phila., containing a long paper by Henry Fox on Orthoptera.

Dr. Forbes spoke of his visit to Mt. Washington in July. Rain interfered seriously with collecting but there were some noteworthy captures, particularly that of the Arctic bear, *Hyphoraia parthenos*, by Mr. Emerton at the unusually low level of 1,000 feet. The Mt. Washington butterfly, *Chionobas semidea*, was also noted.

Mr. Leng showed photographs of *Donacia adults*, larvæ and cocoons, made by Mrs. Ellen Robertson Miller.